

## CLAIMS

1. A rotary transformer-type resolver comprising:  
an inner core, on which a rotary transformer output winding is wound, wherein the inner core includes at least one flange;  
a resolver rotor, on which resolver excitation windings are wound, wherein the resolver rotor and the inner core are coaxial and are constructed to be secured to a rotary shaft;  
a spacer located between the inner core and the resolver rotor, wherein a fixing groove is formed in the spacer, and a crossover, which connects the rotary transformer output winding and the resolver excitation windings is accommodated by the fixing groove.
2. A rotary transformer-type resolver according to claim 1, wherein a cutout groove, which accommodates the crossover, is formed in the flange, and the fixing groove and the cutout groove are aligned in an axial direction of the resolver.
3. A rotary transformer-type resolver according to claim 1, wherein a gap is formed in the rotor, and the fixing groove is offset from the gap in a circumferential direction of the rotor.
4. The rotary transformer-type resolver according to claim 3, wherein the crossover passes through the gap.

5. The rotary transformer-type resolver according to claim 3, wherein the rotor includes angularly spaced magnets, and the gap is a space between an adjacent pair of the magnets.

6. A rotary transformer-type resolver according to claim 1, wherein a plurality of fixing grooves is formed in the spacer and a plurality of corresponding cutout grooves is formed in the inner core.

7. A rotary transformer-type resolver according to claim 1, wherein the fixing groove is one of a plurality of fixing grooves formed in the spacer, and the number of fixing grooves is equivalent to a number of windings leading out from the rotor.

8. A rotary transformer-type resolver according to claim 1, wherein the fixing groove formed in the spacer has an outwardly facing aperture, and the aperture narrows in the radial direction of the spacer.

9. A rotary transformer-type resolver according to claim 1, wherein the spacer is integral with the flange.

10. A rotary transformer-type resolver comprising:  
a resolver rotor, on which resolver excitation windings are wound, wherein the resolver rotor is constructed to receive a rotary shaft;

an inner core, on which a rotary transformer output winding is wound, wherein the inner core is constructed to be coaxial to the rotor when fitted to a rotary shaft, and the inner core includes a first flange and a second flange, wherein the first flange is spaced apart axially from the second flange, and the first flange, which is located between the rotary transformer output winding and the rotor, is extended in an axial direction, such that the axial dimension of the first flange is greater than that of the second flange, to form a spacer, and a fixing groove is formed in the spacer; and

a crossover, which connects the rotary transformer output winding and the resolver excitation windings, wherein the crossover is fitted in the fixing groove to secure the crossover to the spacer..

11. A rotary transformer-type resolver according to claim 10, wherein a gap is formed in the rotor, and the fixing groove is offset from the gap in the circumferential direction of the rotor.

12. The rotary transformer-type resolver according to claim 11, wherein the crossover passes through the gap.

13. The rotary transformer-type resolver according to claim 11, wherein the rotor includes angularly spaced magnets, and the gap is a space between an adjacent pair of the magnets.

14. A rotary transformer-type resolver comprising:

an inner core, on which a rotary transformer output winding is wound, wherein the inner core includes at least one flange;

a resolver rotor, on which resolver excitation windings are wound, wherein the resolver rotor and the inner core are coaxial and are constructed to be secured to a rotary shaft, and angularly spaced magnets are located on the rotor, and an inter-magnet spaces exist between the magnets;

a spacer located between the inner core and the resolver rotor, wherein a fixing groove is formed in the spacer;

a crossover, which connects the rotary transformer output winding and the resolver excitation windings, wherein the crossover passes through a first one of the inter-magnet spaces and is fitted within the fixing groove, and the fixing groove is offset from the first one of the inter-magnet spaces in a circumferential direction of the rotor, such that the crossover follows a non-linear path between the rotary transformer output winding and the resolver excitation windings.